HO-81

Bollman Suspension Truss Bridge

Architectural Survey File

This is the architectural survey file for this MIHP record. The survey file is organized reverse-chronological (that is, with the latest material on top). It contains all MIHP inventory forms, National Register nomination forms, determinations of eligibility (DOE) forms, and accompanying documentation such as photographs and maps.

Users should be aware that additional undigitized material about this property may be found in on-site architectural reports, copies of HABS/HAER or other documentation, drawings, and the "vertical files" at the MHT Library in Crownsville. The vertical files may include newspaper clippings, field notes, draft versions of forms and architectural reports, photographs, maps, and drawings. Researchers who need a thorough understanding of this property should plan to visit the MHT Library as part of their research project; look at the MHT web site (mht.maryland.gov) for details about how to make an appointment.

All material is property of the Maryland Historical Trust.

Last Updated: 05-03-2004

Form 10-300 (July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

COUNT	Υ:
н	\sim t

STATE:

NATIONAL	REGISTER	OF HISTO	RIC PL	ACES
INVEN	ITORY - NO	OHIANINO	N FORM	

Maryland	
COUNTY	
Howard	
FOR NPS USE ON	ILY
ENTRY NUMBER	DATE
=-	

	(Two all antrio		Lock		\	ENTRY NUMBER		DATE
		s — complete appl	iicabi	e sectio	ns)			
1.	NAME	Wigners of the second	·	<u> </u>				
	COMMON:	_						-
		man Truss			Bollman,	SuspensionTru	us Bris	عين
	AND/OR HISTORIC:	Dailes	.a m					
<u></u>		man Railroa	ia T	russ				
2.	STREET AND NUMBER:							
	,	d Carrage De		Till	la Datur	and Dissess		İ
	Gorman Road and	a savage Ko	au,	דורר	ie Patux	ent River		
	Savage							
	STATE			CODE	COUNTY:		T	COEE
	Maryland			24	Howar	a	+	027
13.	CLASSIFICATION	· · · · · · · · · · · · · · · · · · ·		1_24	110wai	<u>u </u>		021
<u></u>	CATEGORY	T		 		T	ACCESS	URL E
	(Check One)	1	OWNE	RSHIP		STATUS	TO THE	
	☐ District ☐ Building	₩ Public	P.,kl:	Acquisit	ion:	C Occurring	Yes:	
	Site Structure	Private	1	☐ In Pro	•	Occupied Unoccupied	Restri	cted
	Object	Both		_	Considered	Preservation work	Unres	tricted
	- Solee.		}			in progress	□ No	
			l			l	<u> </u>	
	PRESENT USE (Check One or)							
		· · · · · · · · · · · · · · · · · · ·) Pork			Transportation	Commer	nts
		. -	_	ate Reside	nce _] Other (Specify)		
		_] Reli] Scie	grous ntific				
	1							
4.	OWNER OF PROPERTY							
	IOWNER'S MAME.			` ; 				
	OWNER'S NAME:		<u> </u>	***				
	County Executiv	ve, Howard	Cou	• •	Howard C	ounty Court	house	Mar
-	County Executive STREET AND NUMBER:		Cou	• •	Howard C	ounty Court	house	Mary 1
	County Executiv		Cou	• •	Howard C	ounty Court		, –
-	County Executive STREET AND NUMBER: 21043 Court Place City or town:		Cou	• •	STATE:		cc	land
5.	County Executive STREET AND NUMBER: 21043 Court Planting or town: Ellicott City	ace	Cou	• •			cc	lan
5.	County Executive STREET AND NUMBER: 21043 Court Place City or town:	ace	Cou	• •	STATE:		cc	land 4
5.	County Executives Treet and Number: 21043 Court Planting or Town: Ellicott City LOCATION OF LEGAL DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION DESCRIPTION D	ACE CRIPTION DEEDS, ETC:	Cou	• •	STATE:		cc	land 4
5.	County Executives received and Number: 21043 Court Place of Court City Ellicott City LOCATION OF LEGAL DESCRIPTION OF LEGAL DESCRIPT	CRIPTION DEEDS. ETC: Courthouse	Cou	• •	STATE:		cc	land How
5.	County Executive STREET AND NUMBER: 21043 Court Place Court or town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF LEGAL DESCRIPTIO	CRIPTION DEEDS. ETC: Courthouse	Cou	• •	STATE:		cc	land Howar
5.	County Executives TREET AND NUMBER: 21043 Court Planting of Town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF	CRIPTION DEEDS. ETC: Courthouse	Cou	• •	STATE:		2	land Howa
5.	County Executive STREET AND NUMBER: 21043 Court Place Court or town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF LEGAL DESCRIPTIO	CRIPTION DEEDS. ETC: Courthouse	Cou	• •	STATE: Mary		2	land Howard
	County Executives recent and Number: 21043 Court Place of Court Place of Court City of Court Place of Court Place of Court Place of Court of Court Place of Court Place of Court of Court Place of Court of Court Place of Court Of	CRIPTION DEEDS. ETC: Courthouse ace	Cou	• •	STATE: Mary	land	2	land Howard
	County Executives received and number: 21043 Court Place of the county	CRIPTION DEEDS. ETC: Courthouse ace		nty,	STATE: Mary	land	2	land Howard
	County Executives record and number: 21043 Court Plant or town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF	CRIPTION DEEDS. ETC: Courthouse ace	(SE)	nty,	STATE: Mary STATE Ma	land ryland	2	land Howard
	County Executives Treet and Number: 21043 Court Plant or town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF LE	CRIPTION DEEDS. ETC: Courthouse ace	(SE)	E CONT	STATE: Mary STATE Ma FINUATION es and 1	land ryland SMEET) andmarks	cc 2	land Howard
	County Executives Treet and Number: 21043 Court Place of the Court of town: Ellicott City LOCATION OF LEGAL DESCRIPTION OF LEGAL DES	CRIPTION DEEDS. ETC: Courthouse ace TING SURVEYS ter of hist	(SE)	nty,	STATE: Mary STATE Ma	land ryland	cc 2	land Howard
	County Executive STREET AND NUMBER: 21043 COURT Plant CITY OR TOWN: Ellicott City LOCATION OF LEGAL DESCRIPTION	CRIPTION DEEDS. ETC: Courthouse ace TING SURVEYS ter of hist 70 ECORDS:	(SE)	E CONT	STATE: Mary STATE Ma FINUATION es and 1	land ryland SMEET) andmarks	cc 2	land Howard
	County Executive STREET AND NUMBER: 21043 COURT Plant City or town: Ellicott City LOCATION OF LEGAL DESCRIPTION	CRIPTION DEEDS. ETC: Courthouse ace TING SURVEYS ter of hist 70 ECORDS:	(SE)	E CONT	STATE: Mary STATE Ma FINUATION es and 1	land ryland SMEET) andmarks	cc 2	land Howard
	County Executive STREET AND NUMBER: 21043 COURT Plant CITY OR TOWN: Ellicott City LOCATION OF LEGAL DESCRIPTION	TING SURVEYS ter of hist 70 ECORDS: rical Trust	(SE)	E CONT	STATE: Mary STATE Ma FINUATION es and 1	land ryland SMEET) andmarks	cc 2	land Howard
	County Executive STREET AND NUMBER: 21043 COURT Plant City or town: Ellicott City LOCATION OF LEGAL DESCRIPTION	TING SURVEYS ter of hist 70 ECORDS: rical Trust	(SE)	E CONT	STATE: Mary STATE Ma FINUATION es and 1	land ryland SMEET) andmarks	cc 2	land Howard
	County Executive STREET AND NUMBER: 21043 COURT Place City or town: Ellicott City LOCATION OF LEGAL DESCRIPTION	TING SURVEYS ter of hist 70 ECORDS: rical Trust	(SE)	E CONT	STATE: Mary STATE Ma CINUATION es and 1 State	land ryland SMEET) andmarks	cc 2	land Howard

DESCRIPTION							
		•		(Check One)			
CONDITION	☐ Excellent	∑ Good	☐ Foir	Deteriorated	Rvins	☐ Unexposed	
CONDITION		(Check O	ne)		(Che	ck One)	
	☐ Alter	red	▼ Unaltered		Moved	Original Site	

DESCRIBE THE PRESENT AND ORIGINAL (II known) PHYSICAL APPEARANCE

On an abandoned Baltimore and Ohio Railroad spur in the village of Savage, Maryland, approximately three miles northeast of Laurel, halfway between Washington and Baltimore, is one of America's more significant civil engineering relics. This two-span iron truss bridge is the sole surviving example of a type that played a critical role in railroad development, a story that has characteristically been dominated by the parallel progress of the locomotive.

The 1850 structure, patented in 1852, was a small span of seventy-six feet and to some extent experimental. The design was undoubtedly inspired by the classical method of strengthening a wood beam by the addition of an iron truss rod below. The Bollman truss was invariably of composite construction: those members subjected to tensile stresses were of wrought iron; those in compression were of cheaper cast iron.

George K. Fitch in the Baltimore Engineer says:

The idea of an all iron bridge was not original with Bollman. Such bridges were fairly common in England, the material at first being cast iron. The development of wrought iron and its use in combination with cast iron made a satisfactory structure but the idea failed to interest American designers principally because of the abundance of timber and the difficulty of obtaining sufficient quantities of usable iron.

By 1850, manufacturing of iron products in America had overcome any shortage.

The truss designed by Bollman was not in a true sense a truss. Rather it partook of the nature of a suspension bridge. It has been said that Latrobe, under whom Bollman worked, was skeptical of the prevalent trussing system in which the separate panel loads were accumulatively carried back to the end posts. In the Bollman design each panel load was individually carried back to the end of the bridge.

Bollman adopted the familiar "king post" method of strengthening a beam by placing a short post underneath the beam at the center point and supporting the bottom end of the post by diagonal tension rods attached to the ends of the beam. This is exactly what Bollman did

(SEE CONTINUATION SHEET)

DATE

Maryland

Form 10-300a (July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

HISTORIC PLACES	COUNTY
MINATION FORM	Howard
MINATION FORM	FOR NPS USE ONL
	ENTRY NUMBER

STATE

(Continuation Sheet)

(Number all entries)

Bollman Truss

#6. REPRESENTATION IN EXISTING SURVEYS continued

National Historic Civil Engineering Landmark

1966 Federal

American Society of Civil Engineers 345 E. 47th Street
New York, New York code: 36

#7. DESCRIPTION continued

at each lower panel point of his truss. It should also be noted that the truss had no bottom chord and the downward stress in each vertical post was carried directly to the end posts by flat bars of wrought iron. In other words the vertical load in each post was suspended from the end posts.

This confusion of diagonal bracing gave the truss a spider-web looking elevation, but the theory was correct with one exception. Only the diagonals attached to the center post of the bridge were equal in length. All other diagonals had different lengths, which affected any distortion of material due to temperature changes causing unequal expansion in the diagonals making it difficult to keep the bridge in line.

Robert M. Vogel in an interview states in "Engineering Contributions of Wendel Alan Bollman":

A feature of the Bollman system was the independence of its structural units. Each floor beam was supported by two separate pairs of diagonal wrought-iron ("I") eye-bars or ties on each side of the bridge, so that if those carrying one beam should for any reason fail, the others would continue to carry their load undisturbed, preventing total collapse. Much was made of this point in an era when structural failures were not uncommon, and the spindly appearance of ironwork, contrasted with the familiar massiveness of works in timber

(1 of 4 continuation sheets)

e-- 🗣 •

Form 10-300a (July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	
Maryland	
COUNTY	
Howard	
FOR NPS USE ON	LY
ENTRY NUMBER	DATE

(Number all entries)

Bollman Truss

#7. DESCRIPTION continued

and masonry, was a source of some uncertainty to the traveling public.

#8. SIGNIFICANCE continued

In view of the primitive state of structural theory and practice with iron construction material at the time, plus the high cost and limited supply of the material, the proposal was an awesome one.

Gradually Bollman improved his truss bridge design which the Baltimore and Ohio used exclusively for cast iron rail-road bridges until 1873 when heavier railroad trains demanded a different, more durable, structural material. Approximately one hundred Bollman-designed spans, erected either by the Baltimore and Ohio or by Bollman's company, the Patapsco Bridge and Iron Works, were constructed in the United States and in Latin America. As an example of the durability of the Bollman truss, the bridge over the Potomac at Harper's Ferry-where Bollman's cast iron trusses gradually replaced the wooden bridge (1852 to 1870)—served the Baltimore and Ohio and, later, highway traffic until destroyed by a flood in 1936.

The commitment of the Baltimore and Ohio Railroad to the Bollman truss is significant in that this decision helped reduce world suspicion about cast iron for bridge construction. The Baltimore and Ohio's confidence in cast iron induced many people in America and abroad to experiment with this then-revolutionary material.

Wendel Bollman was born in Baltimore in 1814. His connection with the Baltimore and Ohio Railroad Company began on July 4, 1828 (aged 14): Bollman, before he was eighteen years old, was present when Charles Carroll of Carrollton (1737-1832) turned the first spade of earth beginning the construction of the Baltimore and Ohio Railroad. For the next two years Bollman worked as a carpenter's apprentice laying track for the Baltimore and Ohio. From 1830 to 1837 Bollman studied carpentry and became a journeyman. In 1838, while working on a house in Harper's Ferry, Bollman was asked to help repair the wooden Baltimore and Ohio Railroad bridge over the Potomac. After completing the repairs Bollman was given a permanent job at age twenty-two with the Baltimore

SIGNIFICANCE			
PERIOD (Check One or More as	Appropriate)		
Pre-Columbian;	· 🔲 16th Century	□ 18th Century	20th Century
☐ 15th Century	☐ 17th Century	🔀 19th Century	
SPECIFIC DATE(S) (If Applicat	ole and Known)	1869	
AREAS OF SIGNIFICANCE (Ch.	eck One or More as Approprie	ite)	
Abor iginal	■ Education	☐ Political	- Urban Planning
☐ Prehistoric	∑ Engineering	Religion/Phi-	Other (Specify)
☐ Historic	Industry	losophy	Bridge construction
☐ Agriculture	☐ Invention	Science	Iron technology
☐ Architecture	Landscope	Sculpture	
☐ Art	Architecture	Social/Human-	
Commerce	Literature	itarian	
☐ Communications	Military	☐ Theater	
☐ Conservation	☐ Music	Transportation	
			

STATEMENT OF SIGNIFICANCE

The Bollman bridge at Savage, Maryland, is the <u>sole</u> <u>surviving</u> Bollman truss in the United States, and possibly in the world.

The system of bridge trussing invented by the Baltimore engineer Wendel Bollman (1814-1884) was the first to be used with consistency on an American railroad in which all of the principal structural members were of iron.

The direct and intimate relationship of this bridge to two present National Historic Landmarks should be noted. The Thomas Viaduct, Howard and Baltimore Counties, and the Baltimore and Ohio Transportation Museum, Baltimore City, have been so designated as fitting recognition of the vital role played by the Baltimore and Ohio Railroad in America's internal communication and transportation. The Bollman truss, it can be fairly stated, played as vital a role in the railroad's development as did any other single aspect of its early plant.

The Bollman truss bridge at Savage is the only structure in Maryland designated as a National Historic Civil Engineering Landmark (1966) by the American Society of Civil Engineers.

Bollman, serving under Benjamin H. Latrobe as "Master of Road" for the Baltimore and Ohio Railroad, gave form to the concept with what he termed a "suspension" truss.

From its inception, as the first commercially organized railroad in the United States, the Baltimore and Ohio was a pioneer venture. Its innovations in railway construction, motive power and structural engineering, influenced and led the thinking of railroads around the world. No single departure was more crucial than the decision of Benjamin H. Latrobe, the Railroad's Chief Engineer, in about 1848, to substitute iron for timber in all major bridges along the line, both old and new, to eliminate fire hazard, rot and the other defects and hazards inherent in timber construction.

(SEE CONTINUATION SHEET)

Form 10-300a (July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	
Maryland	
COUNTY	
Howard	
FOR NPS USE ON	LY
ENTRY NUMBER	DATE

(Number all entries)

Bollman Truss

#8. SIGNIFICANCE continued

and Ohio as foreman of the bridge construction. Through self education and native ability, Bollman worked himself up to assistant, working as bridge designer for the Chief Engineer, Benjamin H. Latrobe. In 1848 Bollman was made "Master of the Road" for the Baltimore and Ohio Railroad Company which put him in charge of all construction. During his service in this position the Baltimore and Ohio completed the arduous continuation of the railroad across the mountains to the Ohio River.

His contribution to engineering is the design of more than one hundred bridges, erected by the Baltimore and Ohio Railroad Company before 1880. More significant at the time, however, were the advances Bollman made in structural theory: the rods on the Bollman truss were forerunners, in theory, to the cables used in suspension bridges. Bollman's iron columns for a bridge in Havana, Cuba, provided the inspiration for the rolled-iron columns, known as the "Phoenix" form which circumvented the brittle qualities of wrought iron. Bollman's name is not as familiar as that of John Augustus Roebling, designer of the Brooklyn Bridge, however, his influence in the development of iron bridges is equal to Roebling's.

In 1858 Bollman left the Baltimore and Ohio Company to form his own bridge building company. The Baltimore and Ohio Company continued to use Bollman's trusses and his services. In 1864 he designed the Y-shaped Harper's Ferry Bridge, which remained in good working order continuously through 1894. Bollman, working through a company of his own, designed bridges in Iowa, over the Mississippi, in Ohio, over the Ohio River, and in North Carolina, over the Cape Fear River. Bollman's skills were also in demand in Chile, Mexico, and Cuba. In his native city--Baltimore--Bollman designed a dozen bridges, including the water pipe truss over Jones Falls stream, at Lombard Street; the cast iron framework for the dome, as well as the cast iron stairs, of the City Hall, Baltimore (designed in 1873 by George A. Frederick).

The present (1971) Savage bridge was built in 1869 on the main line. As locomotive and train weight increased it became inadequate for this service and in 1888 the 1869 Savage bridge was removed to its present location on the Savage spur.

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Recorders: Michael Bourne, Maryland Historical Trust, Annapolis, Maryland, 1968; Nancy Miller, Historian, Maryland Historical Trust, 1969.

Biographical Cyclopedia of Representative Men of Maryland and the District of Columbia. Baltimore: National Biographical Publishing, 1879.

(SEE CONTINUATION SHEET)

- 1				(SEE CONI	INUA	1 1	ON SH	EET)				
10.	GEOGI	RAPHICAL D	ATA						· · · · · · · · · · · · · · · · · · ·	·-		
	1	LATITUDE AN	LONGITU	DE COORDINATE		0	OF LESS THAN TEN ASSES			APROP		
	CORNER	LATIT	JDE	LONGITUE	E	R		ATITU			ONGITUE)E
		Degrees Minutes Seconds Degrees Minutes Second			Seconds		Degrees	Minute	s Seconds	Degrees	Minutes	Seconds
	NW	•	• •		•		1 0			,	•	
	NE	•	• •		-		39	06	55.5	76	49	31.0
1	SE	0										
Į	SW	0		٠.	-					<u> </u>		
l	APPROX	MATE ACREA	GE OF NON	INATED PROPER	RTY:		4	acr	es (SEE	CONT	דיגנוואד	TON
	LIST ALL	STATES AND	COUNTIES	FOR PROPERTI	ES OVER	LA	PPING STA	TE OF			SHF	
	STATE:	•			CODE		COUNTY	Δ				CODE
]_		• 				
Ĵ	STATE:				CODE		COUNTY:					CODE
}						7						
- [STATE:				CODE	1	COUNTY:					CODE
1				•		7						
	STATE:				CODE	T	COUNTY:					CODE
1						7						
11.	FORM	PREPARED	BY		<u> </u>							
	NAME AN	D TITLE:										
- 1	Mrs.	Presto	n Pari	sh, Keepe	r of	t	he Mai	cvla	nd Regi	ster		
	ORGANIZ	ATION					4.	-4		DATE		
	Mary	land His	storic	al Trust						Dec	.22,	1971
	STREET	AND NUMBER:										
1	94 C	College 1	Avenue									
	CITY OR	TOWN:				5	TATE					CODE
	Anna	polis				1	Maryland					24
12.			FICER C	RTIFICATION		T	N.	ATION	AL REGIST	ER VERI	FICATIO	N
				•		1						
	As the	decisested C	tata Tiala	on Officer for the	o No							
		_		on Officer for the ct of 1966 (Publ		-	I hereby certify that this property is included in the					
							National Register.					
		-		s property for in-		-						
				ertify that it has teria and proced		-		•				
				vice. The recon		- }}						
		of significance			mended	Chief, Office of Archeology and Historic Preservation				servation		
		ational	State									
		ational	State	MA DOCAL	LJ	1						
		(A)	Λ	nili	1	,	Date					
	Name	UNC	11 00	Midon	11 K		A ******					
		Orland	do Rid	out IV			ATTEST	:				
	Title	State L	iaison	Officer		1	ı					
			Maryla			.				Nadia 15	2 4 2 4	
	1							. Ked	eper of The I	vationalk	cegister	
	Date December 23, 1971					.	Ďate					

Form 10-300a (July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY - NOMINATION FORM

STATE	
Maryland	
COUNTY	
Howard	
FOR NPS USE ONL	Y
ENTRY NUMBER	DATE

(Continuation Sheet)

(Number all entries)

Bollman Truss

#9. REFERENCES continued

- Edwards, Lewellyn Nathaniel. A Record of History and Evolution of Early American Bridges. Orono, Maine: Maine University Press, 1959.
- Fitch, George K. "Wendel Bollman . . . and His Times."

 Baltimore Engineer. Vol. XLI (November 1966), 5-6, 12.
- Hungerford, Edward. The Story of the Baltimore and Ohio
 Railroad 1827-1927. 2 vols. New York: G. P. Putnam's
 Sons, 1928.
- Stover, John F. American Railroads. Chicago: University of Chicago Press, 1961.
- Vogel, Robert M., Jr. "Engineering Contributions of Wendel Alan Bollman." Paper #36. U. S. National Museum Bulletin #240. Washington, D. C., 1964.

#10. GEOGRAPHICAL DATA continued

This bridge, as a significant engineering monument, would require a protective area of four acres to assure that incompatible encroachments do not intrude upon the location.

1400810517 81

See # HO-26
BOLLMAN) TRUE

1)4:

Form 10-445 (5/62)

SUPPLEMENTAL INFORMATION AND PHOTOTARPHS MAY BE ADDED ON SHEET OF SAME SIZE

1. STATE Maryland
COUNTY Howard
TOWN Savage
STREET NO.

NO. OF STORIES

VICINITY

ORIGINAL OWNER Baltimore & Unio R.R. ORIGINAL USE bridge for main line of PRESENT OWNER Baltimore & Unio R.R. PRESENT USE unused WALL CONSTRUCTION cast iron

HISTORIC AMERICAN BUILDINGS SURVEY
INVENTORY H/- 8 /

2 NAME Bollman Truss

DATE OR PERIOD 1009
STYLE BOllman Truss
ARCHITECT
BUILDER

3. FOR LIBRARY OF CONGRESS USE

4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION

OPEN TO PUBLIC YES

This is the last surviving example of the more than one hundred such trusses constructed of cast iron members and composed of two spans of eighty feet each, equalling 100 feet. It was moved from an unknown position to its present location, in 1888, along the main line of the Baltimore and Ohio Railroad and carried an industrial spur over the Little Patuxent River. It was last actively used in 1900.

5. PHYSICAL CONDITION OF STRUCTURE Endangered NO Interior

Exterior good

6. LOCATION MAP (Plan Optional)

8. PUBLISHED SOURCES (Author, Title, Pages)
INTERVIEWS, RECORDS, PHOTOS, ETC.

Engineering Contributions of Mendel Alan Bollman, Robert M. Vogel,

Jr., paper # 30, U.S. National Museum Bulletin, #240 Washington

7. PHOTOGRAPH

9. NAME, ADDRESS AND TITLE OF RECORDER
Michael Bourne
Maryland Historical Trust
hel.

DATE OF RECORD June, 20, 1908

Form 10-445 (5/62)

SUPPLEMENTAL INFORMATION AND PHOTOMAPHS MAY BE ADDED ON SHEET OF SAME SIZE

Maryland 1. STATE

Howard COUNTY Savage TOWN

VICINITY

STREET NO.

ORIGINAL OWNER Baltimore & Ohio R.R. railfoad bridge for main line of PRESENT OWNER Baltimore & Ohio R.R. PRESENT USE unused WALL CONSTRUCTION

NO. OF STORIES

cast iron

4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION

HISTORIC AMERICAN BUILDINGS SURVEY INVENTORY HO-76 8/

2 NAME Bollman Iron Truss Bridge

1869 DATE OR PERIOD STYLE Bollman Truss ARCHITECT

BUILDER

3. FOR LIBRARY OF CONGRESS USE

OPEN TO PUBLIC

This is the last surviving example of the more than one hundred such trusses constructed of cast iron members and composed of two spans of eighty feet each, equalling It was moved from an unknown position to its present location, in 1888, along the main line of the Baltimore and Ohio Railroad and carried an industrial spur over the Little Patuxent River. It was last actively used in 1966.

5. PHYSICAL CONDITION OF STRUCTURE Endangered NO

Interior

Exterior GOOD

6. LOCATION MAP (Plan Optional)

3. PUBLISHED SOURCES (Author, Title, Pages) INTERVIEWS, RECORDS, PHOTOS, ETC.

Engineering Contributions of Wendel Alan Bollman, Robert M. Vogel,

Jr., paper #36, U.S. National Museum Bulletin, #240 Washington 7. PHOTOGRAPH

9. NAME, ADDRESS AND TITLE OF RECORDER

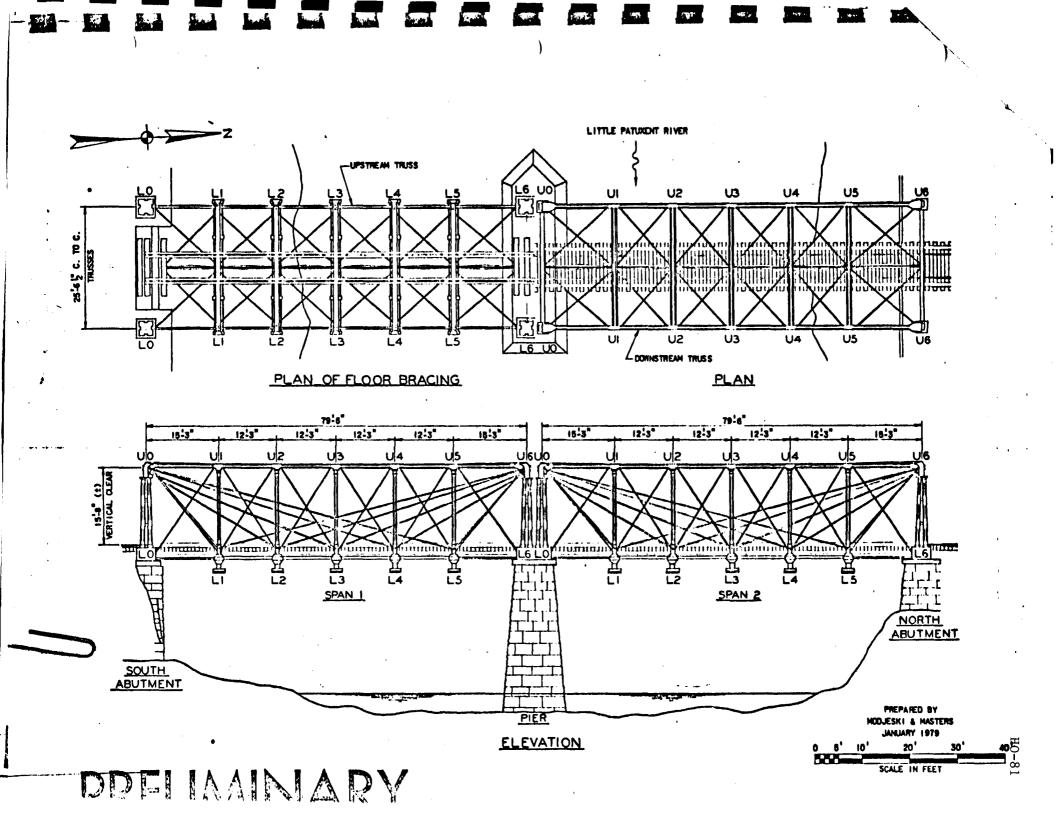
Michael Bourne

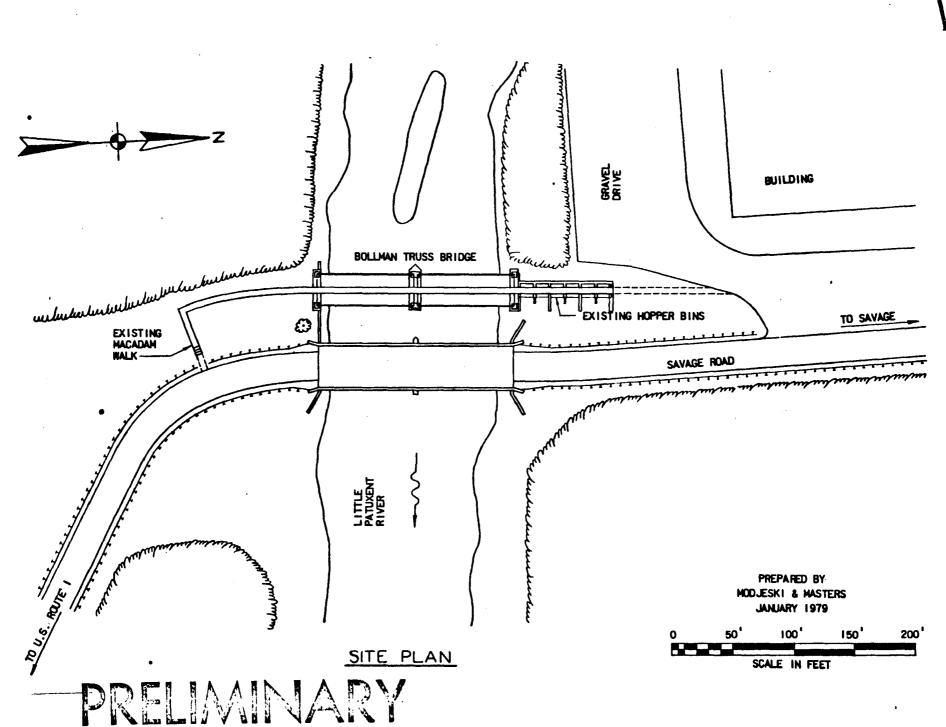
MD. HISTORICAL TRUST **BOX 1704**

ANNAPOLIS, MD. 21404

June 20, 1968 DATE OF RECORD

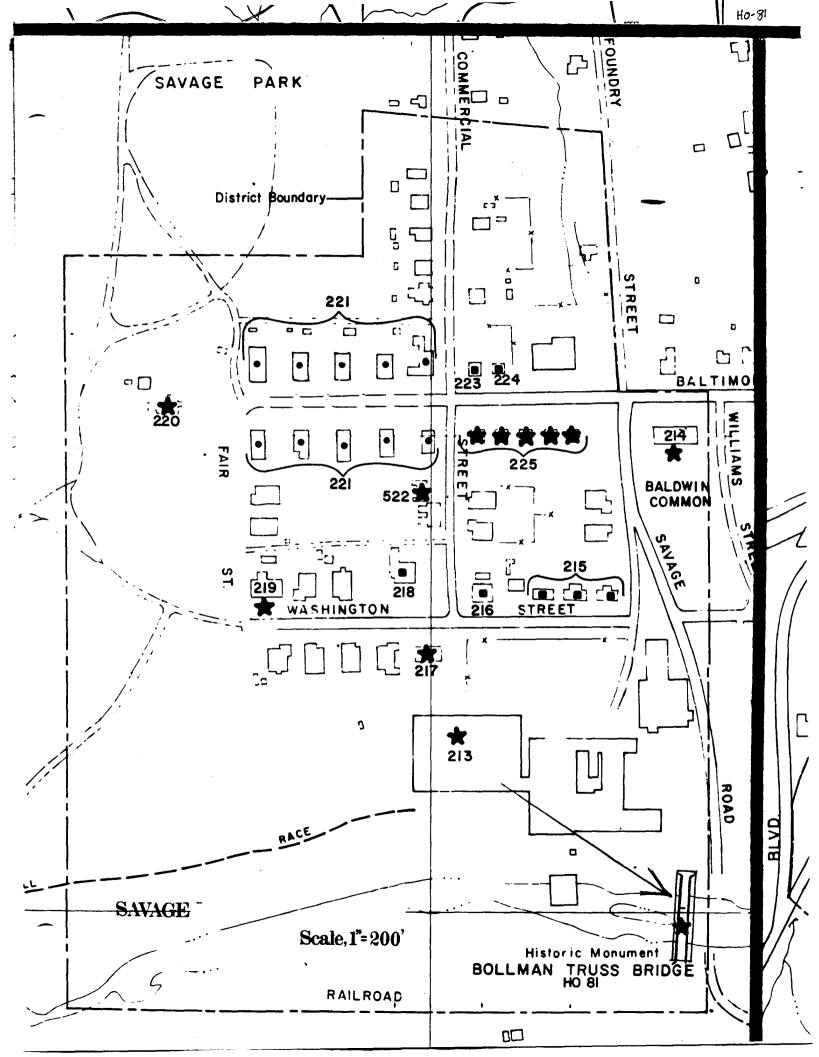
1964

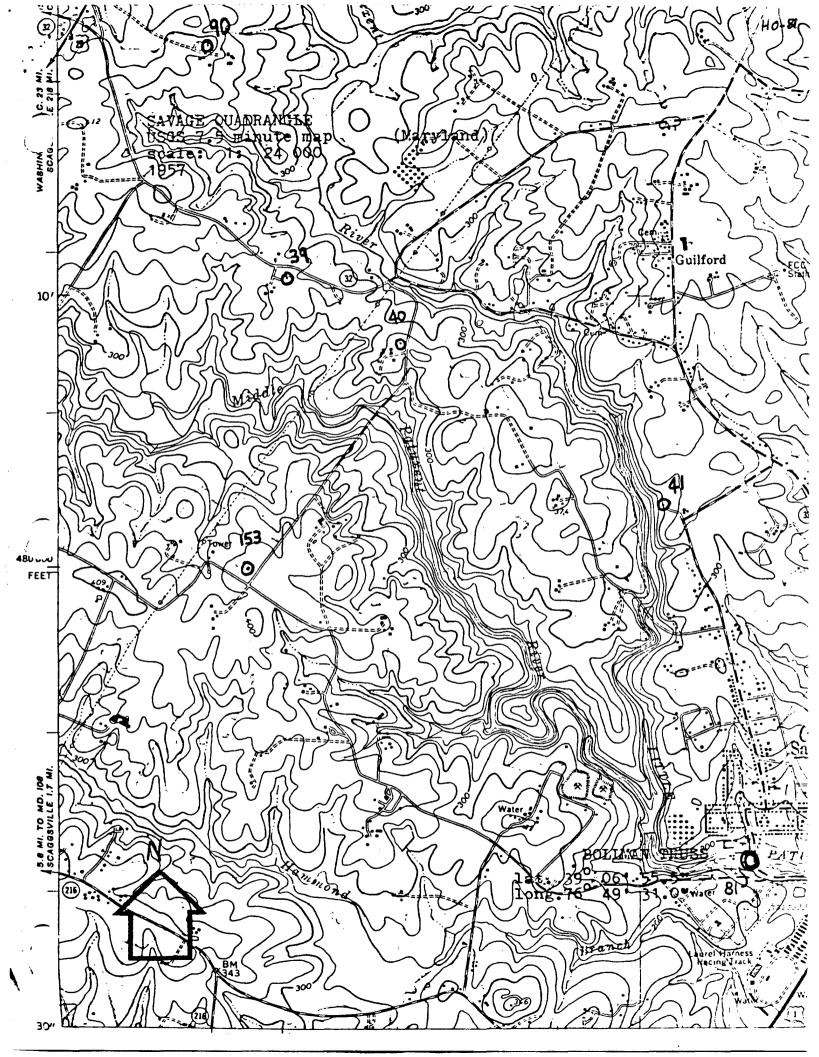


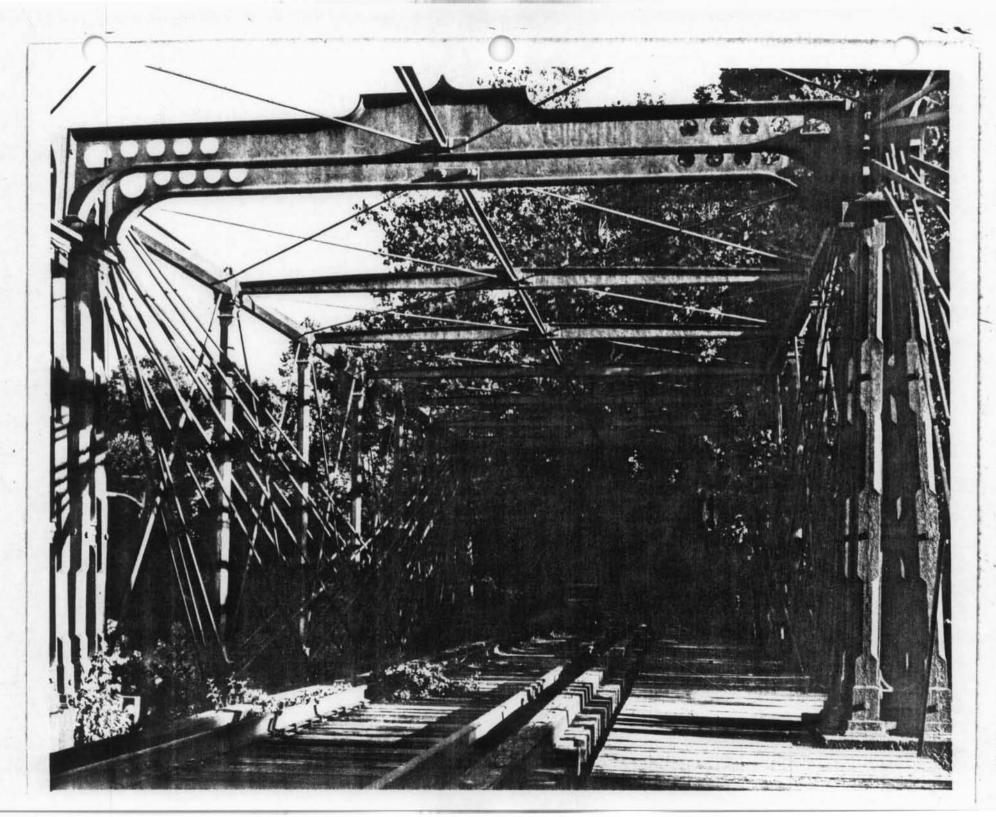


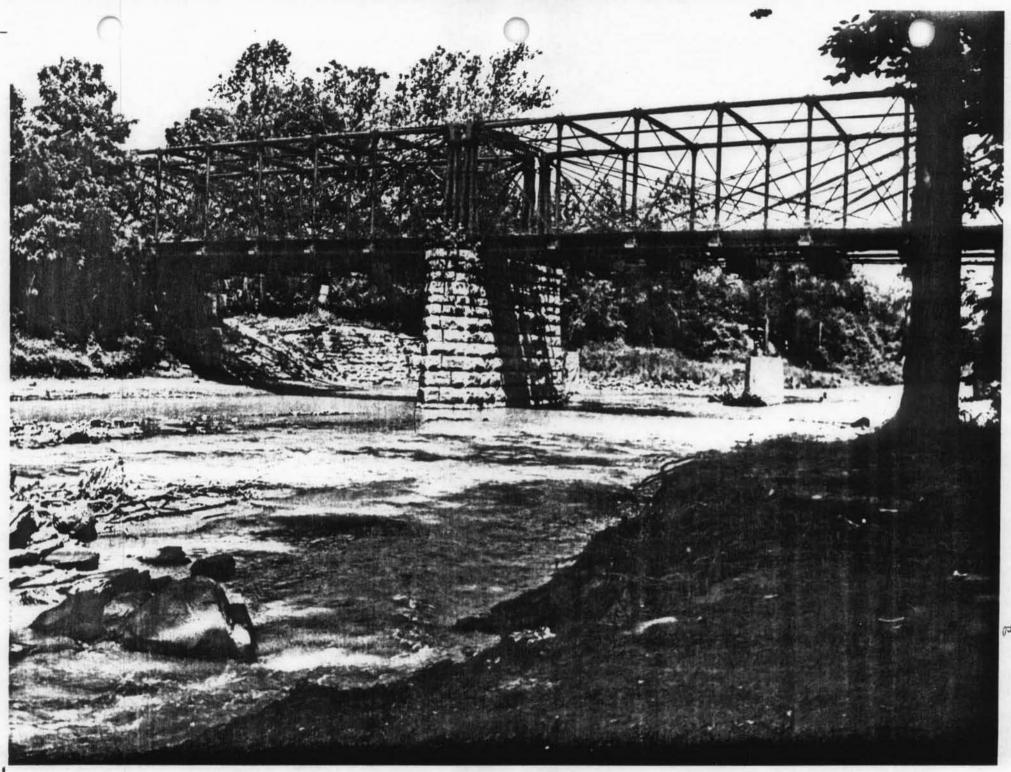
HO-81

H0-8









H0-81

1400810517 81

See # HO-26 Dational Register
BOLLMAN TRUSS 8#



Bollman Trussed Bridges Ho-8

Jean Ewing 12/1972

Neg. on File @ MHT



110-81 Bollman Trais Bridge Jean Ewing 12/1472 Neg. on FIECEMAT



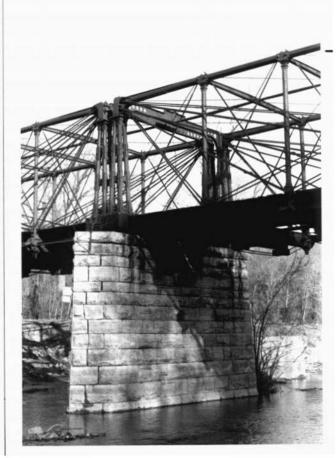
Neg. on fire MAT Bollman -



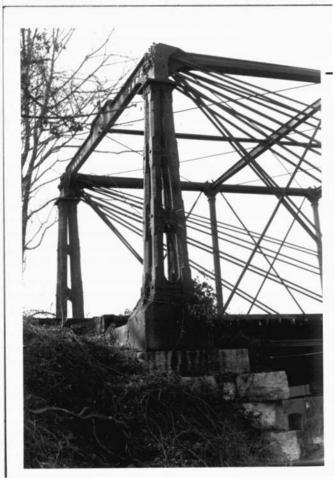
Bollman Tue Bridge



HO-81
Bollman Tess Bridge
Jean Ewing
17/1977
Negionfile & MHT



HO-81 Bollman Truss Bridge Jeanewing 12/1972 Ney onfile MAT



110-81 Bollman Truss Bridge Jean Cwing 17/1972 Neg. onf 1e @ MAT





Kodak

Kodak

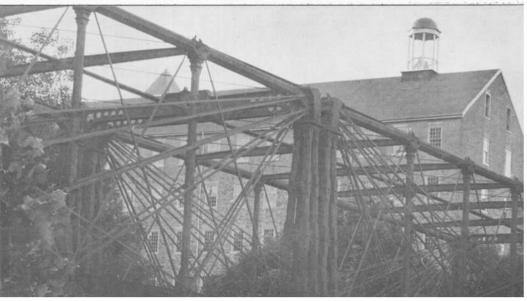
2001 0

8891 A9A

E861 94A

4PR 1983

40-81



The Savage cotton duck mill, r founded in 1816. Near it stands a only surviving structure of its kir	estored in 1966, was Bollman truss bridge, id.		H0-81
		N :	



Bollman truss hin by Shrape and 1869 HD-81.

(behind) Savege cotton duck will 1816

(1956 photh)

Rustogel